

REMARKS

Status of the Claims

Claims 1-21 and 26-37 are pending, with claim 1 being independent. Without conceding the propriety of the rejections, claims 1 and 26-29 have been amended to remove non-elected subject matter pursuant to the restriction requirement. Claims 2-6, 9-11, 13-15, and 26-37 are amended to be consistent with the amendments to independent claim 1. Thus, basis for these amendments may be found in the claims and specification as-filed, and no new matter has been added. Applicants reserve the right to file at least one or more divisional applications directed to the non-elected subject matter.

Applicants respectfully request the Examiner to reconsider and withdraw the outstanding rejections in view of the foregoing amendments and the following remarks.

Claim Rejections under 35 U.S.C. § 112

Claims 1-21 and 26-37 stand rejected under 35 U.S.C. § 112, first paragraph, as purportedly failing to comply with the written description requirement. Specifically, the Office argues that the claimed terms "heterodiamondoid", "higher diamondoid nucleus", and "replaced by a heteroatom" are not supported by the specification.

As suggested by the Examiner, the claims are amended herein to recite a "heterodiamondoid compound", as well as to remove non-elected subject matter. Applicants submit that the claims as amended herein are supported by the specification, and thus this rejection is obviated.

Claims 1-21 and 26-37 stand rejected under 35 U.S.C. § 112, first paragraph, as purportedly failing to comply with the enablement requirement. Specifically, the Office acknowledges that the specification is enabling for a heterodiamondoid having four amantane or replaced by a heteroatom N, but does not provide reasonable enablement for a heterodiamondoid nucleus having more than four or five amantane, or replaced with heteroatom Ni. Applicants respectfully traverse.

To hold that a disclosure is not enabling, the examiner must provide evidence or technical reasoning substantiating those doubts. Without a reason to doubt the truth of the statements made in the application, the application must be considered enabling. *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513, (Fed. Cir. 1992); *In re Marzocchi*, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971) *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir. 1988). As noted in *Wands*, The determination that undue experimentation would have been needed to make and use the claimed invention is not a single, simple factual determination. Rather, it is a conclusion reached by weighing all the relevant factual considerations, including breadth of claims, state of the art and guidance provided.

The Office argues that the claims as directed to a heterodiamondoid nucleus having more than four or five amantane, or replaced with heteroatom Ni. To this end, Applicants note that the claims are amended herein to remove non-elected subject matter. Thus, independent claim 1 is directed to a heterodiamondoid compound wherein the diamondoid nucleus is selected from a triamantane or higher diamondoid nucleus having at least one of its carbon atoms replaced by a heteroatom selected from the group consisting of nitrogen, phosphorus, selenium, aluminum, and arsenic; and wherein R¹, R², R³, R⁴, R⁵, and R⁶ are each independently hydrogen or a covalently bonded functional group, provided that the covalently bonded functional group does not comprise a heteroaryl or heterocycle moiety. As amended herein, the breadth of the present claims do not encompass an unreasonable large number of species, and the present claims are not directed to a heterodiamondoid compound without limitation.

Applicants further submit that the claims of the present invention as directed to a heterodiamondoid having more than four amantane are enabled. The skilled artisan would not have to perform undue experimentation to make or use the claimed invention.

The amount of guidance provided and the state of the art support the assertion that the claims are enabled. The specification provides guidance as to at least four amantane. In further support, Applicants cite to issued patents, by the Applicants, directed to heterodiamondoids having a nucleus of greater than four amantane. For example, U.S. Patent No. 6,815,569 is directed to tetramantanes. U.S. Patent No. 6,843,851 is directed to pentamantanes. U.S. Patent No. 6,812,370 is directed to

hexamantanes, and U.S. Patent No. 6,812,371 is directed to nonamantanes. U.S. Patent No. 6,828,469 is directed to heptamantanes. U.S. Patent No. 6,831,202 is directed to octamantanes. U.S. Patent No. 6,844,477 is directed to processes for the purification of higher diamondoids. U.S. Patent No. 6,743,290 is directed to undecamantanes. U.S. Patent No. 6,858,700 is directed to polymerizable higher diamondoid derivatives, including intermediates to the derivatives, polymers formed from the derivatives and methods for preparing same.

Thus, Applicants submit that undue experimentation would not be required by the skilled artisan to take the disclosure in the present specification directed to four amantanes, and use that to prepare pentamantanes, hexamantanes, and higher amantanes.

Thus, in light of the above remarks and amendments to the claims herein, Applicants request that these rejections be withdrawn.

Obviousness-type double patenting

Claims 1-21 and 26-37 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting, as purportedly unpatentable over claims 1-10 of copending application, U.S. Application No. 10/622,046. As this rejection is provisional and the purportedly conflicting claims are not yet patented, Applicants respectfully request that the rejection be held in abeyance until allowable subject matter is determined.

Claim Objections

Claims 1-21 and 26-37 have been objected to [under 37 CFR § 1.75(c)] as allegedly containing non-elected subject matter. Claims 1 and 26-29 are amended herein to remove non-elected subject matter. Thus, this objection is mooted.

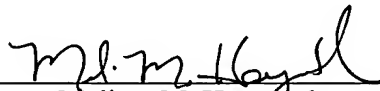
Conclusion

Without conceding the propriety of the rejections, the claims have been amended, as provided above, to even more clearly recite and distinctly claim Applicants' invention and to pursue an early allowance.

In view of the foregoing remarks, reconsideration of the claims and allowance of the subject application is earnestly solicited. In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By 
Melissa M. Hayworth
Registration No. 45,774

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

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